CHAPTER II.

SURVEY WORKING PLANS AND ANNUAL PLANS OF OPERATION.

11. The departmental survey of the forests on a large scale has been in progress, but the services of only one surveyor were available, the other qualified surveyor was, during the early part of November, deputed to settle the boundary line of Kacho Kanuri and remained there till January; afterwards he was attached to the Divisional Forest Officer, Hyderabad, who had received orders to inspect the land in the Thar and Parkar Districts, the acquisition of which, as fuel reserves for a proposed railway, has been under consideration.

12. The following forests were surveyed during the year under report:—

Sukkur Division.

	Area surveyed.
Abad	4,393 Acres.
Khia Bindi	1,370 „
Keti Shahu	1,500 „
Shah Belo	3,760 „

Hyderabad Division.

Kacho Khanote.

13. The work of cutting up the forests with compartment lines has progressed satisfactorily—193 miles were cut.

14. Boundary marks round all the forests have been kept in repair, and boundary paths and compartment lines have been cleared of the season's growth.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

Section 1.—*Establishments.*

15. In the year 1871-72 Government, on the report of the Inspector-General of Forests in India, (the late Dr. Brandis), deputed Dr. Schlich to examine the Sind Forests, and, if necessary, to bring them under a better system of management. The result of this examination was the formation of three separate Divisions, each under an Assistant Conservator of Forests, and the position of the subordinate staff was thereby slightly improved. The area of the State forests then was 3,52,041 acres—income, Rs. 2,42,675—expenditure, Rs. 1,44,518—surplus, Rs. 98,157. Subsequently Mr. Campbell submitted proposals for a revision of establishment, which were sanctioned in Government Resolution dated the 16th March 1876. Four Divisions were formed, an Assistant Conservator of Forests in charge of each, and the pay and prospects of the subordinate establishment were improved. In 1876-77 the area of the forests was 3,43,326 acres—income, Rs. 3,36,029—expenditure, Rs. 2,32,473—surplus, Rs. 1,03,556. Again, proposals for a permanent protective and office establishment were called for in Government Resolution No. 3687, dated the 7th June 1882, which were submitted by me in August 1883, and sanctioned from 1st April 1885.

This revision absorbed the temporary establishment. Five Divisional Offices were formed, and Rangers and Foresters were graded on higher pay.

In 1885-86 the area was 4,30,926 acres—income, Rs. 5,36,874—expenditure, Rs. 4,02,660—surplus, Rs. 1,34,214. The controlling staff then consisted of—

Colonel McRae, Conservator of Forests.

Mr. Hexton, Deputy Conservator of Forests, Hyderabad Division.

„	Dasai	„	„	Jerruck	„
„	Gleadow, Assistant	„	„	Sukkur	„
„	Neribdas, Sub-Assistant	„	„	Naushahro	„
„	Showkiram	„	„	Jacobabad	„

Since then the area in charge of the department has increased with the income and expenditure, and during the year under report reached—area 6,34,564 acres—income, Rs. 6,26,761—expenditure, Rs. 4,09,458—surplus, Rs. 2,17,303, and the controlling staff at the end of the year was as follows :—

Colonel McRae, Conservator of Forests.

Mr. Ryan, Assistant Conservator of Forests, Sukkur Division.

„	Neribdas, Sub-Assistant	„	„	Jerruck	„
„	Showkiram	„	„	Hyderabad	„
„	Tuljaram	„	„	Naushahro	„

The fifth Division, Jacobabad, was added to the Sukkur Division, all with the exception of one range, which was transferred to the Naushahro Division, and the Divisional Office was abolished from the 1st April 1887. It will be thus apparent that while the work, income, expenditure and area has during this time been steadily increasing, there has been a great reduction in the controlling staff, one Division is held charge of by an officer entirely unacquainted with English, whilst the Sukkur Division is so large that the Divisional Forest Officer cannot possibly give the necessary supervision to the forests in his charge, as he is not able to visit the whole of them once during the season. Colonel McRae has already applied for the services of one other officer, and I am of opinion that two more are absolutely necessary, one of them to be on probation learning the work, so as to be at hand to relieve any of the other officers who may be going on leave, or incapacitated through sickness.

16. Colonel J. G. McRae was at the head of the Department throughout the year.

17. Mr. G. M. Ryan was in charge of the Sukkur Division from 1st to 8th April 1889, and was transferred to the Jerruck Division, relieving Mr. A. Stewart on the 10th idem.

18. Mr. A. Stewart took charge of the Sukkur Division on the 13th April 1889 from Mr. Tuljaram, who was temporarily in charge of that Division.

19. Mr. A. Stewart proceeded on three months' privilege leave on the 18th June 1889 and was relieved by Mr. Tuljaram, Sub-Assistant Conservator of Forests, who held charge of the Sukkur Division till the 9th October, when he was relieved by Mr. Ryan, transferred from the Jerruck Division.

20. Mr. Neribdas was in charge of the Naushahro Division from 1st April to 10th October, was relieved by Mr. Tuljaram, Sub-Assistant Conservator, and proceeded to assume charge of the Jerruck Division from Mr. Ryan.

21. Mr. Tuljaram held independent charge of the Naushahro Division till the end of the year. It is very much to be regretted that this officer is unacquainted with English, the language in which all his accounts are submitted to the Accountant General, and in which more than half of his correspondence takes place. He is a very good assistant to a Divisional Forest Officer, but should never have been placed in independent charge of a Division.

22. Mr. Showkiram Pribdas, Sub-Assistant Conservator of Forests, held charge of the Hyderabad Division throughout the year.

23. The Jerruck Division was under the charge of Mr. A. Stewart till the 9th April, when he was relieved by Mr. Ryan on the 10th idem, who held charge till the 8th October 1889, and relinquished charge on the following day, being succeeded by Mr. Neribdas Jethmal.

24. Mr. A. Stewart, Deputy Conservator of Forests, was transferred to the Northern Circle, and left Sind on the 18th June 1889.

Section 2.—General Protection and Breaches of Forest Laws.

25. The case against Forester Anandrai, reported on in the concluding portion of para. 25 of last year's report, as pending in the City Magistrate's Court at Shikarpur, was committed to the Sessions Court and resulted in the acquittal of the accused. But Munshi Anandrai was dismissed the service by Colonel McRae on account of dishonesty, inefficiency, insubordination, repeated neglect of duty and disregard of orders.

26. A comparative table showing the cases tried before Magistrates for breaches of Forest laws during the year under report and the one preceding it is given below :—

Name of Division.	Number of cases tried before Magistrates.		Number of convictions.	
	1888-89.	1889-90.	1888-89.	1889-90.
Sukkur	84	65	46	45
Naushahro	8	16	7	11
Hyderabad	10	14	8	8
Jerruck	3	3	2	3
Total ...	105	98	63	67

There seems to be a reduction in the number of cases tried before the Magistrates to that of the previous year, whereas on the other hand the convictions obtained are greater. The whole of these cases are of a trifling nature, with the exception of the one given below.

Muso Bughio, a zamindar in the Labdaria Taluka, cut a broad boundary path through a part of the Kanoori Forest, with a view of adding the land so cut off to his zamindari. The matter was inquired into and a complaint was lodged against him in the 2nd Class Magistrate's Court at Labdaria, but was subsequently transferred to the Sub-Divisional Magistrate's Court at Rohri. The case was pending at the close of the year, and the services of the Public Prosecutor had been applied for and obtained.

27. The subjoined table shows the number of petty offences compounded under Section 67 of the Indian Forest Act :—

Name of Division.	Illicit grazing.		Thefts.		Other offences.		Compensation.	
	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.
Sukkur	514	371	73	66	7	4	2,659	1,638
Naushahro	103	146	24	17	10	42	149	226
Hyderabad	117	97	119	114	...	...	720	590
Jerruck	493	429	5	29	28	...	788	614
Total ...	1,227	1,043	221	226	45	46	4,316	3,068

It will be observed from the above table that the number of offences under illicit grazing during the year under report is considerably less than that of the preceding year. This result is due to the efficient control exercised by Forest Guards, along with the fact that, owing to the high inundation, good grazing could be had outside forest limits and cattle owners were not so much tempted to trespass.

Section 3.—Fires.

28. There is a great improvement in the figures as compared with the previous year, which is attributable to the high inundation and other causes, such as closing areas burnt against grazing.

29. The following statement gives the number of fires and the areas burnt during the last and the previous year :—

Name of Division.	Number of Fires.		Area burnt—Acres.	
	1888-89.	1889-90.	1888-89.	1889-90.
Sukkur	61	41	3,946	1,197
Naushahro	8	3	2,078	13
Hyderabad	15	7	1,013	397
Jerruck	10	8	238	96
Total ...	94	59	7,275	1,703

The area burnt by fires was not valuable but covered with grass, &c.

Section 4.—Grazing.

30. The inundation had been a high one, and in consequence the grazing was good and saved the cattle from the distress which threatened them by the failure of rain.

31. A statement of the number of cattle permitted to graze free is given below :—

Buffaloes	721
Horned cattle	3,684
Horses and donkeys	53

Section 5.—Natural Reproduction.

32. The working plan of the Sind Forests, probably already described in former reports, consists in the fencing in of compartments worked for fuel, and out of which cattle are excluded, until the coppice-shoots and seedlings are of such growth as to escape being trodden down, when buffaloes, cows and sheep are admitted, and after the tops of the young trees have attained a sufficient height to be free from harm—goats are then allowed to browse. Attention has been paid to this duty, and with satisfactory results, as far as the river-side forests are concerned; but complaints have reached me with regard to a number of the areas acquired within recent years that are situated some distance from the river. The Divisional Forest Officer, Sukkur, remarks—"As the system of irrigation in Sind is by means of canals, it is necessary to point out how very desirable it is that forests should be given to us along the river bank where floods come," and "it is better under existing conditions to abandon those Belas far removed from the river which can be irrigated by canal agency only, and secure instead Belas on the river side." Again, "there is a large area of land in the Shikarpur range, the growth in which is getting small by degrees and beautifully less, and the state of which is rapidly deteriorating into the condition of a desert." The Divisional Forest Officer, Naushahro, reports:—"If the closed blocks referred to in the foregoing two paras. do not get sufficient water, it is feared that they will be ruined soon." The forests in the other two Divisions are all, with only one or two exceptions, situated on the banks of the river, and are therefore under the influence of its floods. The above facts prove that I am right in the opinion I have already expressed to the effect that all new reserves should be selected from areas available on the river.

Section 6.—Artificial reproduction.

33. It has been ascertained that the conditions under which the forests in Sind have been formed are a sufficiency of water and the strict exclusion of cattle during the early stages of their growth. We also know that their position as regards water varies according to the eccentricities of the river, which frequently makes the very existence of the forests uncertain. I therefore think any money expended on the artificial production of forests in Sind is utterly wasted. The year's operations under this head have been restricted to the sowing of a quantity of babul seed in closed blocks, but, as a rule, this is unnecessary, and the distribution of seed may be safely left to cattle and floods which do it much more thoroughly.

Section 7.—Experiments.

34. Experiments with exotics have on the whole been failures. We find the *Dalburgia Sissu* (Tali) thrives in Upper Sind, and I believe that the *Prosopis Glandulosa* and *Acacia Catechu* (Khair) may eventually grow side by side with the Babul and Kandi, but their distribution will be very slow. Cattle, which are very fond of the legumes of the former, may hasten the process. I have long been of opinion that the *Casurina* would succeed in the sandy valley of the Malir river near Karachi, and hope to visit the locality again with the view of seeing how my old experiment has succeeded.

Section 8.—Communications and Buildings.

35. In the Sukkur Division a small house for the Naka Munshi of Jhali was built at a cost of Rs. 80. Existing buildings were repaired as usual.

36. In the Naushahro Division a compound wall was constructed round the Larkana Depôt at a cost of Rs. 65, and the necessary repairs to existing building were carried out.

37. In the Hyderabad and Jerruck Divisions nothing new was undertaken, and existing buildings were repaired.

CHAPTER IV.

YIELD AND WORKING.

SECTION 1.—DEPARTMENTAL OPERATIONS.

38. The following is the detail of the working of Depôts :—

Name of Depôt.	Stock on hand on 1st April 1889.			Added during the year 1889-90.			Disposed of during the year 1889-90.			Balance on 31st March 1889-90.		
	Timber.	Posts and Rafters.	Fuel.	Timber.	Posts and Rafters.	Fuel.	Timber.	Posts and Rafters.	Fuel.	Timber.	Posts and Rafters.	Fuel.
	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.
Shikarpur	327	8,802	200	28	9,590	...	61	15,585	11	294	2,807	189
Sukkur	9,378	8,717	266	2,523	7,328	1,819	4,361	15,355	1,216	7,540	690	869
Rohri	376	847	...	396	13,861	...	232	7,571	...	540	7,137	...
Larkana	...	267	281	...	500	3,325	...	767	3,606	...	...	...
Sehwan	...	5,166	...	17	7,450	...	17	9,864	...	...	2,752	...
Tatta	221	...	...	...	...	...	221	...	...	...	...	...
Keti Bandar	333	...	1,875	9,657	...	...	9,325	...	625	665	...	1,250
Kotri	523	...	32,276	...	...	94,216	179	...	1,12,613	344	...	13,879
Hyderabad	3,051	52,349	1,645	13,159	1,15,737	68,425	12,123	1,15,176	51,780	4,087	52,910	18,290
Total ...	14,209	76,148	36,543	25,780	1,54,466	1,67,785	26,519	1,64,318	1,69,851	13,470	66,296	34,477

39. The quantity of timber and fuel sold at each Depôt is given below :—

Name of Depôt.	Timber—c. ft.		Posts and Rafters. No.		Fuel—Mds.	
	1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.
Shikarpur	325	61	9,947	15,585	...	11
Sukkur	3,284	4,361	6,014	15,355	1,025	1,216
Rohri	1,877	232	18,449	7,571	...	...
Larkana	...	...	1,633	767	4,428	3,606
Sehwan	...	17	13,729	9,864	...	...
Karachi	...	...	...	...	...	...
Tatta	8	221	1,640	...	...	...
Keti Bandar	7,510	9,325	...	...	812	625
Kotri	860	179	80	...	1,18,960	1,12,613
Hyderabad	6,107	12,123	1,73,566	1,15,176	87,246	51,780
Total ...	19,971	26,519	2,25,058	1,64,318	2,12,471	1,69,851

40. The following statement gives the quantity of timber supplied to the State Railway and other departments and bodies direct from the forests :—

Name of Department.	Babul logs.	Babul sleepers.	Tali logs.	Poplar bullies.
North-Western Railway	...	...	...	1,825
Karachi Harbour Works	...	1,310	...	...
Gun Carriage Department	477	...	...	...
Telegraph Department	4	...	...	...
Judicial Department, Quetta	12	...	4	...
Total ...	493	1,310	4	1,825